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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,208	06/22/2001	Brendon Conlan		8401

7590 10/07/2004  
James D. Jacobs  
Baker and McKenzie  
805 Third Avenue  
New York, NY 10022

EXAMINER

PHASGE, ARUN S

ART UNIT PAPER NUMBER

1753

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/887,208

Applicant(s)

CONLAN ET AL.

Examiner

Arun S. Phasge

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 43-114 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 43-114 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/11 + 8/16
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 43-44, 46-55, 57, 58, 60-63, 65, 66, 68-71, 74-86, 88-91, 93-96 are rejected under 35 U.S.C. 102(b) as being anticipated by Egen et al. (Egen), U.S. Patent 5,336,387.

Egen discloses the claimed method and apparatus for the selective removal of at least one biological contaminant, including the claimed contaminants, from a biological compound, including the claimed compounds (see column 3, lines 52-55) comprising directing a first fluid stream having a selected pH to flow along a first selective membrane, directing a second fluid along the first membrane isolated from the first fluid stream thereby, applying at least one voltage potential across each of the fluid streams until the desired purity is obtained to recover the purified compound (see figure 1 and column 5, lines 10-55). The reference further

discloses the third and fourth fluid streams (see figures 6a-6e and columns 14-17 for the discussion of the figures with separation and fractionation of compounds).

Therefore, since the Egen patent discloses each and every limitation, the claims are anticipated.

Claims 43-44, 46-58, 60-66, 68-72, 74-96 are rejected under 35 U.S.C. 102(b) as being anticipated by Laustsen, U.S. Patent 5,437,774.

Laustsen discloses the claimed method and apparatus for the selective removal of at least one biological contaminant, including the claimed contaminants, from a biological compound, including the claimed compounds (see column 6, lines 35-52) comprising directing a first fluid stream having a selected pH to flow along a first selective membrane, directing a second fluid along the first membrane isolated from the first fluid stream thereby, applying at least one voltage potential across each of the fluid streams until the desired purity is obtained to recover the purified compound (see figures 1-9 and column 5, lines 10-55). The reference further discloses the third and fourth fluid streams (see figures 1-5 and columns 8-9). The reference further discloses the claimed range of the membrane's molecular weight cutoff (see column 7, lines 15-30).

Therefore, since the Laustsen discloses each and every limitation, the claims are anticipated.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 45, 59, 67, 73 and 97-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laustsen as applied to claims above, and further in view of Margolis, U.S. Patent 5,650,055.

The Laustsen patent while discloses that the direction of the electric field can be adjusted based upon a variety of reasons, fails to disclose the reversal of polarity (see col. 6, lines 5-23). The Margolis patent is cited to show the use of the reversal of polarity in the electrophoretic separation of macromolecules, such as proteins to allow the desired proportion of the at least one species of macromolecules (see abstract).

Consequently, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the disclosure of the Laustsen patent with the teachings contained in the Margolis patent, because the Margolis patent teaches that the periodic reversal of polarity allows the desired purity of the compounds.

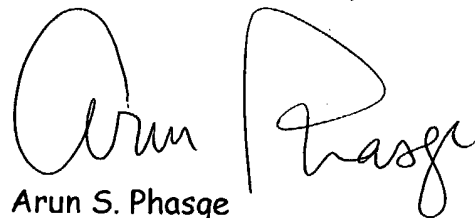
### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Phasge whose telephone number is (571) 272-1345. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X Nguyen can be reached on (571) 272-1342. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Arun Phasge', is written over a faint, large, stylized outline of the letters 'AP'.

Arun S. Phasge  
Primary Examiner  
Art Unit 1753

asp